IT BITZ

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DEPARTMENT OF INFORMATION TECHNOLOGY

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VISION OF THE INSTITUTION

To make this Institution the unique of its kind in the field of Research and Development activities in this part of world.

MISSION OF THE INSTITUTION

To impart highly innovative and technical knowledge to the urban and unreachable rural student folks through "Total Quality Education".

QUALITY POLICY

Committed to impart Quality Technical Education imbibed with proficiency, human values and continual improvement.

DEPARTMENT OF INFORMATION TECHNOLOGY

VISION OF THE DEPARTMRNT

To make the department of Information Technology the unique of its kind in the field of Research and Development activities in this part of world.

MISSION OF THE DEPARTMRENT

To impart highly innovative and technical knowledge in the field of Information Technology to the urban and unreachable rural student folks through Total Quality Education.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO 1: Graduates of the programme will exhibit expertise in technical knowledge by applying distinctive skills in various fields of Information Technology

PEO 2: Graduates will become pioneers in the field of IT by working collaboratively and providing solutions to meet societal needs through persistent learning

PEO 3: Graduates will be able to adopt innovative practices and contribute towards research and technological development in the field of IT through Total Quality Education

PROGRAMME SPECIFIC OUTCOMES (PSOs)

Engineering Graduates will be able to:

1. **Design an algorithm, process or component** to address its real time needs in the field of Information Technology through analytical skills.
2. **Ability to adopt the evolutionary changes** in computing and pursue a career in IT and IT enabled industries.

ABOUT THE DEPARTMENT

Information Technology department was established in the year 2001 and has 9 well qualified faculty members expertise in various fields of Information Technology and can exert a dedicated work to produce high caliber technocrats. Of them, three have completed their doctoral degree, five of them are pursuing their doctoral degrees and all others have PG degrees. Department offers various value added courses on IBM Cloud Computing, IBM Cyber Security and Full Stack Developer to impart the knowledge in students to satisfy the industrial needs.

HEAD OF THE DEPARTMENT

Dr. P. Subathra Heads the Department of Information Technology since August 2015. She received her Doctorate in Philosophy in the field of Information and Communication Engineering from Anna University, Chennai. She completed her PG in Computer Science and Engineering & UG in Electrical and Electronics Engineering from Madurai Kamaraj University, Madurai. Her area of interest includes Networks and Network Security. Under her guidance, one scholar has completed Doctoral Degree. Also she is guiding one research scholar under Anna University, Chennai. She has published around 10 international journals and conferences for her credit. She has given guest lecture in various institutions on Network Security, Soft Computing and IoT.

ReactJS

React is a front-end library developed by Facebook. It is used for handling the view layer for web and mobile apps. ReactJS allows us to create reusable UI components. It is currently one of the most popular JavaScript libraries and has a strong foundation and large community behind it.

React is a library for building composable user interfaces. It encourages the creation of reusable UI components, which present data that changes over time. Lots of people use React as the V in MVC. React abstracts away the DOM from you, offering a simpler programming model and better performance. React can also render on the server using Node, and it can power native apps using React Native. React implements one-way reactive data flow, which reduces the boilerplate and is easier to reason about than traditional data binding.

React Features

- **JSX** − JSX is JavaScript syntax extension. It isn't necessary to use JSX in React development, but it is recommended.

- **Components** − React is all about components. You need to think of everything as a component. This will help you maintain the code when working on larger scale projects.

- **Unidirectional data flow and Flux** − React implements one-way data flow which makes it easy to reason about your app. Flux is a pattern that helps keeping your data unidirectional.

- **License** − React is licensed under the Facebook Inc. Documentation is licensed under CC BY 4.0.

React Advantages

- Uses virtual DOM which is a JavaScript object. This will improve apps performance, since JavaScript virtual DOM is faster than the regular DOM.

- Can be used on client and server side as well as with other frameworks.

- Component and data patterns improve readability, which helps to maintain larger apps.

React Limitations

- Covers only the view layer of the app, hence you still need to choose other technologies to get a complete tooling set for development.

- Uses inline templating and JSX, which might seem awkward to some developers.

React uses JSX for templating instead of regular JavaScript. It is not necessary to use it, however, following are some pros that come with it.

- It is faster because it performs optimization while compiling code to JavaScript.

- It is also type-safe and most of the errors can be caught during compilation.

- It makes it easier and faster to write templates, if you are familiar with HTML.

Using JSX

JSX looks like a regular HTML in most cases. We already used it in the Environment Setup chapter. Look at the code from **App.jsx** where we are returning **div**.

App.jsx

```
import React from 'react';

class App extends React.Component {
  render() {
    return (
      <div>
        Hello World!!!
      </div>
    );
  }
}
export default App;
```

Even though it's similar to HTML, there are a couple of things we need to keep in mind when working with JSX.

Nested Elements

If we want to return more elements, we need to wrap it with one container element. Notice how we are using **div** as a wrapper for **h1**, **h2** and **p** elements.

App.jsx

```
import React from 'react';

class App extends React.Component {
  render() {
    return (
      <div>
        <h1>Header</h1>
        <h2>Content</h2>
        <p>This is the content!!!</p>
      </div>
    );
  }
}
export default App;
```


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Attributes

We can use our own custom attributes in addition to regular HTML properties and attributes. When we want to add custom attribute, we need to use **data-** prefix. In the following example, we added **data-myattribute** as an attribute of **p** element.

```
import React from 'react';

class App extends React.Component {
  render() {
    return (
      <div>
        <h1>Header</h1>
        <h2>Content</h2>
        <p data-myattribute = "somevalue">This is the content!!!</p>
      </div>
    );
  }
}
export default App;
```
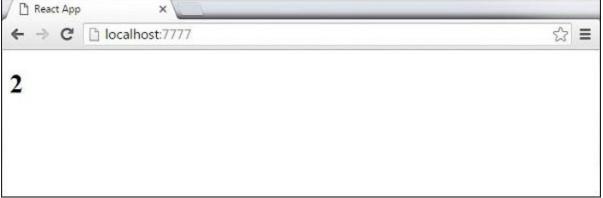
JavaScript Expressions

JavaScript expressions can be used inside of JSX. We just need to wrap it with curly brackets **{}**. The following example will render **2**.

```
import React from 'react';

class App extends React.Component {
  render() {
    return (
      <div>
        <h1>{1+1}</h1>
      </div>
```

```
    );
  }
}
export default App;
```


We cannot use **if else** statements inside JSX, instead we can use **conditional (ternary)** expressions. In the following example, variable **i** equals to **1** so the browser will render **true**, If we change it to some other value, it will render **false**.

```
import React from 'react';

class App extends React.Component {
  render() {
    var i = 1;
    return (
      <div>
        <h1>{i == 1 ? 'True!' : 'False'}</h1>
      </div>
    );
  }
}
export default App;
```

True!

Styling

React recommends using inline styles. When we want to set inline styles, we need to use **camelCase** syntax. React will also automatically append **px** after the number value on specific elements. The following example shows how to add **myStyle** inline to **h1** element.

```jsx
import React from 'react';

class App extends React.Component {
  render() {
    var myStyle = {
      fontSize: 100,
      color: '#FF0000'
    }
    return (
      <div>
        <h1 style = {myStyle}>Header</h1>
      </div>
    );
  }
}
export default App;
```

Comments

When writing comments, we need to put curly brackets **{}** when we want to write comment within children section of a tag. It is a good practice to always use **{}** when writing comments, since we want to be consistent when writing the app.

```
import React from 'react';

class App extends React.Component {
  render() {
    return (
      <div>
        <h1>Header</h1>
        {//End of the line Comment...}
        {/*Multi line comment...*/}
      </div>
    );
  }
}
export default App;
```

Naming Convention

HTML tags always use **lowercase** tag names, while React components start with **Uppercase**.

KAYAL ARASI. R

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FACULTY ACHEIVEMENTS

FDP/Workshop/STTP/Certification Pogrammes attended

S.No	FDP/ Workshop/STTP/ Summer Schools etc. .	Name of the faculty	Name of the Programme	Date	Organizing Institution	Participated / Presented
1	Training	Dr.M.Chengathir Selvi	Python 3.4.3	01.06.2020 - 06.06.2020	Vaagdevi College of Engineering and IIT Bombay, Spoken Tutorial	Participated
2	FDP	Mrs.M.Kanimozhi	Data Analytics Using Python	22.06.20 - 26.06.20	NITTTR Chandigarh CSE Department	Participated
3	Two Days Industry Led Training	Mrs.M.Kanimozhi	Amazon web Services	04.06.20 & 05.06.20	R.M.K Engineering College	Participated
4	Training	R. Arthy	Python 3.4.3	01.06.2020 - 06.06.2020	Vaagdevi College of Engineering and IIT Bombay, Spoken Tutorial	Participated
5	FDP	R. Arthy	Advanced Research Methodology and Innovative Teaching Pedagogy	08.06.2020 to 13.06.2020	Tulsiramji Gaikwad – Patil College of Engineering and Technology	Participated
6	Two Days Industry Led Training	KAVIYA P	Amazon web Services	04.06.2020 & 05.06.2020	R.M.K Engineering College, Gummidipoondi	Participated
7	Webinar	KAVIYA P	Blockchain Technology	15.06.2020	Sri Venkateswara College of Engineering & Technology, Chittoor	Participated

8	FDP	KAVIYA P	Data Analytics Using Python	22.06.2020 to 26.06.2020	NITTTR Chandigarh	Participated
10	FDP	Vendhan Duraisamy	Emerging Trends in Information Technology	13.06.2020 to 17.06.20 20	Karpagam College of Engineering, Coimbato re	Participated
11	FDP	Vendhan Duraisamy	AdHoc and Wireless Sensor Networks	22.06.2020 to 27.06.2020	Sai Ram Institute of Technology, Chennai	Participated
12	Webinar	Vendhan Duraisamy	Energy Audit and Management	22.06.2020	Ramco Institute of Technology	Participated
13	Webinar	Vendhan Duraisamy	Computational Intelligence - Business Intelligence	22.06.2020	Kamaraj College of Engineering and Technology	Participated
14	Webinar Series	P. ANTONY SEBA	Learning Experience	16/06/2020 to 30/06/20 20	Infosys	Participated
15	Online FDP	P. ANTONY SEBA	Angular Framework	05/06/2020 , 06/06/2020 . 08/06/2020	DMI Colleeg of Engineering, Chennai	Participated
16	Online FDP	P. ANTONY SEBA	Data Handling and Data Visualisatio n using Python	22/06/2020 to 26/06/2020	Swarnandhra Institute of Engineering and Technology	Partcipated

PLACEMENT CORNER

S.No	Roll No	Name	Placed Company	Package(LPA)
1.	16UITE014	JEYA PREETHI S K	Tata Consultancy Services	3,30,000
2.	16UITE022	KALIRAJAN M	DHL Information Services	3,80,000
3.	16UITE027	KEERTHANA DEVI R	Tata Consultancy Services	3,30,000
4.	16UITE023	KOWCIKA K	Centizen Inc	3,00,000
5.	16UITE041	PRAVEEN M	Infosys	5,00,000
6.	16UITE038	PRINCESS DOROTHY D	Solartis Technology Services Pvt. Ltd.	1,61,000
7.	16UITE044	PRIYANKA K	Capgemini Technology Services India Ltd.	3,80,000

COMPANY PROFILE

Tata Consultancy Services Limited (TCS) is the world-leading information technology consulting, services, and business process outsourcing organization that envisioned and pioneered the adoption of the flexible global business practices that today enable companies to operate more efficiently and produce more value.

We commenced operations in 1968, when the IT services industry didn't exist as it does today. Now, with a presence in 34 countries across 6 continents, & a comprehensive range of services across diverse industries, we are one of the world's leading Information Technology companies. Six of the Fortune top 10 companies are among our valued customers. They are part of one of Asia's largest conglomerates - the TATA Group - which, with its interests in Energy, Telecommunications, Financial Services, Chemicals, Engineering & Materials, provides us with a grounded understanding of specific business challenges facing global companies.

- **JEYA PREETHI S K**
  16UITE014
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STUDENT ACHIEVEMENTS

1.	S. Anupriya II IT	New India Learnathon 2020	ICT Academy	May – June 2020
2.	S. Banu Priya II IT	New India Learnathon 2020	ICT Academy	May – June 2020
3.	G. Praveena II IT	New India Learnathon 2020	ICT Academy	May – June 2020
4.	V. Karishma II IT	New India Learnathon 2020	ICT Academy	May – June 2020
1.	R. Divya Bharathi III IT	New India Learnathon 2020	ICT Academy	May – June 2020
2.	G. Jegadeeswari III IT	New India Learnathon 2020	ICT Academy	May – June 2020
3.	T. Malik Chandra Pandian III IT	New India Learnathon 2020	ICT Academy	May – June 2020
4.	S. Swetha III IT	New India Learnathon 2020	ICT Academy	May – June 2020
5.	R. Rathina Mala III IT	New India Learnathon 2020	ICT Academy	May – June 2020
6.	S. Breethi III IT	New India Learnathon 2020	ICT Academy	May – June 2020
7.	S. Preethy Meena III IT	New India Learnathon 2020	ICT Academy	May – June 2020
8.	A. Vishnu Prabha III IT	New India Learnathon 2020	ICT Academy	May – June 2020
9.	A. Mathumitha III IT	New India Learnathon 2020	ICT Academy	May – June 2020
10.	S. Ralina Begam III IT	New India Learnathon 2020	ICT Academy	May – June 2020
11.	J. Nivetha III IT	New India Learnathon 2020	ICT Academy	May – June 2020

THINK!!!

One of the important humanitarian by-products of technology is the greater dignity and value that it imparts to human labour. In a highly industrialized society, there is no essential difference between Brahmin and Dalit, Muslim and Hindu; they are equally useful and hence equally valuable for in the industrial society individual productivity fixes the size of the pay cheque and this fixes social status.

The passage best supports the statement that:

A. technology decides individual's social status.

B. castes and religions are man-made.

C. human labour has dignity and value.

D. all individuals, irrespective of caste and creed, are born equal.

E. industrial society is a great leveller of men.

ANSWER:
OPTION:C

ALUMNI CORNER

Kotlin Vs Python

Particulars	Python	Kotlin
Description	It is a widely used high-level programming language	Kotlin is a statistically typed language with OOP and FP paradigm
Unicode	Yes	Yes
Interpreter	Yes	No
Extension/Plug-in	Yes	Yes
Operating System	Cross-Platform	Cross-Platform
Multilingual Content	Yes	Yes
Development Principles	Python Zen	S.O.L.I.D. Behaviour driven development
Template languages	Chameleon JinjaAdobe Flash Support Django Template System	HTML5
Influences	C, C++, Java, Perl, Smalltalk	Java, Scala, Gosu, C#, Python, Object Pascal, Groovy
Adobe Flash Support	Yes	No
Programming Paradigm	Object-oriented Functional	Object-oriented Functional

	Imperative Programming	Imperative Programming Metaprogramming Reactive programming Reflective
Scripting Language Support	Python	Kotlin
Free to Use	Yes	Yes
Frontend	C#	Kotlin native
Compiled Language	Conditional	Yes
Compiler	No	Yes
CLR	Yes	No
Unsafe Code Support	No	Yes
Maven Support	No	Yes
Creates a slew of inefficient Javascript	No	Yes
Operating System Server	Cross-Platform	Android